

HEAD et al  
Appl. No. 10/584,128  
May 12, 2008

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### **REMARKS/ARGUMENTS**

Reconsideration of this application is requested. Claims 11-20 are in the case.

#### **I. THE ANTICIPATION/OBVIOUSNESS REJECTION**

Claims 11-14 and 16-18 stand rejected under 35 USC §103(a) as allegedly anticipated by 2002/0079106 to Simpson or an allegedly unpatentable over Simpson in view of U.S. patent 6,17,351 to Schröder et al. (Schroder). The rejections are respectfully traversed.

As claimed, the invention provides a method for connecting a portion of an external surface of a first tubular element with a portion of an internal surface of a second tubular element. The method comprises plasma spraying the portion of one or both of the external surface of the first tubular element and the internal surface of the second tubular element with hard angular material to at least partially coat the respective portions and form protuberances on one or both of the respective portions, locating a portion of the external surface of the first tubular element within a portion of the internal surface of the second tubular element, and expanding the portion of the external surface of the first tubular element and/or compressing the portion of the internal surface of the second tubular element to form a connection resulting from the interference between the external surface of the portion of the first tubular element and the internal surface of the portion of the second tubular element and protuberances present on one or both of the portion of the external surface of the first tubular element and the portion of the internal surface of the second tubular element.

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Simpson fails to disclose the use of plasma coating to apply a hard particulate material to form protuberances on the surface. The invention as now claimed specifically recites the step of plasma spraying a portion of one or both of the external surface of the first tubular element and the internal surface of the second tubular element with hard angular material to at least partially coat the respective portions and form protuberances on one or both of the respective portions. Basis for the amendments appears in the claims as originally submitted. No new matter is entered.

Simpson does not disclose the use of plasma coating to apply hard particulate material to form protuberances on the tubular surface. This was specifically conceded on page 2 of the reasons for allowance attached to the Notice of Allowance mailed in this case on November 5, 2007. Now that this step is positively recited in the claimed methodology, it is clear that Simpson does not anticipate the claimed method.

The Action states (p. 3) that the process used to apply the material is "immaterial to the method of connecting two tubulars". Not only is no support provided for this position, it is inapposite with regard to the method as presently claimed which positively recites the plasma coating step, and thus "the process used to apply the material" is highly material to the claimed method of connecting two tubulars.

Withdrawal of the anticipation rejection is believed to be in order. Such action is respectfully requested.

With regard to the obviousness rejection over Simpson in view of Schroder, Simpson does not suggest the claimed method since there is no suggestion of using plasma coating to apply hard particulate material to form protuberances on the tubular surface. This deficiency of Simpson is not cured by Schroder. Schroder is relied upon

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as suggesting that plasma spraying using a mask to form protuberances has been employed for the same purpose in a similar method of connecting two separate tubular elements. This position is respectfully traversed.

It has been discovered, according to the present invention, that particularly good connections can be formed by plasma spraying the external surface of the portion of the first tubular element to form protuberances on the surface. As noted above, Simpson does not disclose or suggest plasma coating to apply a hard particulate material nor its application to form protuberances on the surface. Schroder discloses the application of a ceramic coating by thermal spraying, i.e., flame spraying or plasma spraying, through a perforated mask. However, it would not have been obvious to one of ordinary skill in the art at the time the invention was made to have combined Schroder and Simpson, since there is nothing in Simpson which suggests the use of a mask. Thus, one of ordinary skill would not have been motivated to use a mask technique as disclosed by Schroder to apply an adherent coating on the first tubular element of Simpson.

Schroder addresses technical problems associated with strip coatings for metal components of drive units. The profiled strip coating applied to a metal component of a drive unit abrades an abradable coating during a stripping operation. Far from creating a connection between the two components of the drive unit, it is an objective of the process disclosed by Schroder to form a uniform gap between the abraded coating and the abrasive coating (see, column 1, lines 54-59). Thus, the coating process of Schroder is clearly not "for the same purpose in a similar method for connecting two separate tubular elements" (Action, p. 3).

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As Simpson contains no disclosure or suggestion of using plasma spraying to form protuberances, nor any disclosure suggesting that it would be useful or even appropriate to use a mask, there would not have been any motivation for one of ordinary skill to combine Simpson and Schroder. Absent any such motivation, it is clear that no *prima facie* case of obviousness has been generated in this case. Withdrawal of the obviousness rejection is respectfully requested.

## II. THE SECOND OBVIOUSNESS REJECTION

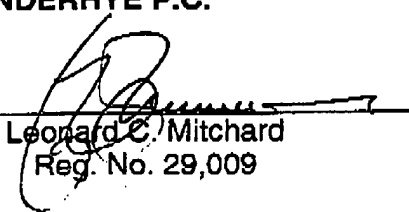
Dependent claims 15, 19 and 20 stand rejected under 35 USC 103(a) as allegedly unpatentable over Simpson in view of U.S. patent 7,225,523 to Metcalfe or Simpson in view of Schroder and further in view of Metcalfe. In response, as claims 15, 19 and 20 are each dependent, either directly or indirectly on claim 11, and since claim 11 is patentable over Simpson either taken alone or in combination with Schroder for the reasons discussed above, it is clear that obviousness rejection of claims 15, 19 and 20 should be withdrawn. Such action is respectfully requested.

Favorable action is awaited.

Respectfully submitted,

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